

GENERAL ENGINEERING SPECIFICATION

FOR

SELLER DOCUMENT REQUIREMENTS

PUEBLO CHEMICAL AGENT-DESTRUCTION PILOT PLANT (PCAPP) PROJECT

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Bechtel Pueblo Team			SPECIFICATION No. 24852-RD-3PS-000-T0004				REV 001
			Sheet 1 of 17				

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1 PURPOSE

This specification establishes the format, submittal/resubmittal, and transmittal requirements for Seller drawings and documents, including quality verification documents, spare components and repair lists, and installation/operation and maintenance manuals. This specification supplements the requirements of the procurement documents. If a Seller believes there is an inconsistency between this specification and the procurement documents, the Seller shall notify the Buyer and request resolution.

Note that in this specification, the procurement terms used in purchase orders, “Buyer” and “Seller,” are used except in cases where the word “Supplier” has been previously established in the title. For subcontracts, the terms “Contractor,” “Subcontractor,” and “subcontract” should be substituted for “Buyer,” “Seller” and “purchase order,” respectively.

2 SUBMITTAL REQUIREMENTS

Seller shall furnish drawings, data and documents in accordance with the Engineering Document Requirements Form G-321-E and Quality Verification Document Requirements Form G-321-V contained in the procurement documents. Seller shall complete the Transmittal Sheet, provided as Attachment A to this specification. The initial Transmittal Sheet shall represent the Seller’s best estimate of the number and type of documents that will be submitted to comply with the requirements of Forms G-321-E. Unique submittals, if any, shall be identified for each tagged item in the purchase order. The form shall be completed no later than ten days after purchase order award and submitted to the Buyer. The Seller shall identify exactly how the data requested on Form G-321-E will be submitted; several types of data may be combined in one document. The Seller and the Buyer shall identify and agree to the schedule dates for submittal of the documents.

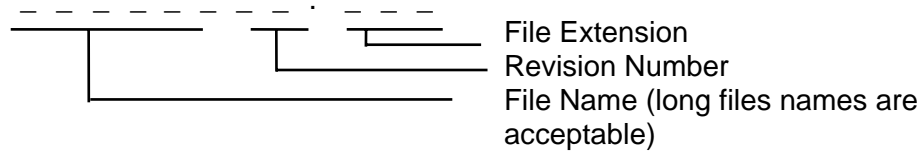
3 DOCUMENT FORMAT

Documents for this project shall be submitted in a commonly available software program (e.g., Adobe Acrobat, Microsoft Word, Excel and MicroStation). Adobe Acrobat 6.0 or better is the preferred document format. On custom drawings, Seller shall electronically initial drawing title blocks with the initials of the originator, checker, and approver. Where submittals consist of photocopied information such as standard catalog cuts, a PDF file shall be submitted with clear identification of the applicable portion to each tagged item and clear distinction of the inapplicable portions.

Acceptable media for electronic copies of documents are as follows:

- Electronic file via Buyer’s document submittal environment – ProjectWise Web Explorer:
<https://pcapp.bechtel.com/pw>
- CD ROM (alternate)

The Seller's file naming convention for documents submitted in electronic format shall be as follows:



Additional specific document requirements are:

- All documents shall be legible. Illegible documents will not be reviewed.
- As a minimum, all documents must show, in the lower right-hand corner:
 - Buyer-assigned equipment tag number(s) (see Section 1 of purchase order)
 - Buyer's purchase order number (above title block)
 - Seller's document title, number, revision, and issue date
- All documents shall be in English. Units of measure shall be consistent with those indicated in the purchase order and data sheets.

4 DOCUMENT TRANSMITTAL

The Seller shall transmit forms and documents over the public Internet, using a secure connection (See Attachment B). The document submittal environment has been configured to work in a secure manner over the Internet, using the HTTPS TCP/IP communications protocol. This mechanism ensures that all the traffic between the user's machine (PC) and the Bechtel access point is protected using encryption. This ensures the privacy of the information being transmitted over the Internet.

Hard copy documents will be accepted with prior approval from the Buyer. All hard copy documents shall be transmitted to the Buyer's address indicated in the purchase order documents. A Transmittal Sheet, Attachment A, shall accompany each hard copy and each electronic copy document submittal and shall itemize the submitted documents. The Transmittal Sheet shall be completely filled out by the Seller. For electronic files, the file name and location of files(s) shall be included and the file shall be named Index.doc.

Following purchase order award, successful bidders will be provided with a link to the Bechtel Pueblo Team (BPT) ProjectWise server. BPT manages Seller submittals with Bentley Systems' **ProjectWise Web Explorer**. The ProjectWise Web Explorer application is used to send and receive documents electronically to and from Sellers. The Buyer's purchase order will include a user authorization form to allow Sellers to request an account on the ProjectWise server. Details regarding the document submittal environment and procedures for using it are in Attachment B.

The Seller shall send an email notification to the project Document Control Center (DCC) indicating that electronic files have been transmitted to the Buyer. The Buyer will acknowledge receipt of the transmittal within five calendar days via an email notification. If the Seller does not receive acknowledgement of receipt within seven calendar days, the Seller should contact the Buyer.

5 REVIEW, COMMENT RESOLUTION, AND RESUBMITTAL

The document review, comment, and resubmittal process is illustrated in Attachment C, Electronic Review of Seller Documents.

Documents submitted for Buyer's review will be assigned a unique document number by the Buyer. In addition, the review status code and the quality level will be included on every document, as follows:

Buyer Doc #: _____	
Review Status: _____	Quality Level: _____

The Buyer's document number and document status code will also be entered on the Transmittal Sheet that Seller has submitted, which will be returned in electronic format to the Seller after review of a document, along with the document in electronic format.

The following review status codes will be used:

- Code 1 Work may proceed.
- Code 2 Resolve comment and if resolution results in revision to drawing, resubmit.
- Code 3 Revise and resubmit. Work may not proceed.
- Code 4 Review not required. Work may proceed.
- Code 5 As-built.

The Buyer's permission to proceed does not constitute acceptance or approval of design details, calculations, analyses, test methods, or materials developed or selected by the Seller and does not relieve the Seller from full compliance with contractual obligations.

Documents that are assigned Code 2 or 3 and require changes shall be revised by the Seller and resubmitted until they achieve Code 1. If the Seller asserts that Buyer comments do not require changes to the document, the Seller shall resolve the comments to the satisfaction of the Buyer. Where Seller comments are successfully resolved by the Buyer, the Seller does not need to resubmit the document; the Buyer will upgrade it to Code 1.

The documents identified on Forms G-321-E and -V shall have a Code 1, 4, or 5 status before final invoices will be paid. Code 1 or 4 approval of a manual does not eliminate the requirements for all individually submitted documents to receive a Code 1, 4, or 5 status code.

Comments will be marked on Seller's documents and returned to the Seller for action/response or incorporation. All comments shall be resolved within 10 working days of receipt. Seller resubmittals shall retain the original document number and be clearly marked with a new revision number in the revision block. Changes shall be encircled or a brief description of the change provided. Resubmittals of documents with a different number of sheets shall be clearly flagged in the Seller's Notes section of the Transmittal Sheet.

Documents with multiple sheets, such as calculations, manuals, etc., shall be resubmitted as complete documents. Revised single sheets will not be accepted. Documents shall not be resubmitted until the Buyer's comments from the previous submittal have been incorporated or resolved.

6 AS-BUILT DRAWINGS/DATA SHEETS

Prior to shipment, the Seller shall submit a Transmittal Sheet certifying that the latest set of documents submitted and approved by the Buyer reflects the "as-built" condition of the equipment or material to be shipped. All as-built certification transmittals shall be signed by an authorized representative of the Seller. These requirements also apply to data sheets. As prescribed in DFAR 252.227-7036 (January 1997), all technical data delivered under the purchase order or subcontract shall be accompanied by the following written declaration:

The Seller/Subcontractor, _____ Company, hereby declares that, to the best of its knowledge and belief, the technical data delivered herewith under Contract No. DAAA09-02-D0025 is complete, accurate, and complies with all requirements of the Purchase Order/Subcontract.

When Seller is required to participate in site acceptance testing, Seller shall update drawings to incorporate field changes; recertify them as as-built, including authorized signature; and resubmit the drawings to Buyer.

7 CERTIFIED DOCUMENTS

When Form G-321-E (or other purchase order documents) indicates that certain as-built documents shall be certified by a professional engineer, the Seller shall have a State of Colorado professional engineer for the appropriate discipline place the engineer's seal, including signature and date, on a hard copy submittal.

8 QUALITY VERIFICATION DOCUMENTATION (QVD)

The Seller shall provide documented evidence to the Buyer's Supplier Quality Representative (SQR) that all engineering documents requiring Buyer acceptance for permission to proceed, as indicated in column 4 of Form G-321-E, have received status Code 1 before the SQR releases any material or equipment for shipment. Any exceptions require the Buyer's written approval.

Missing, incomplete, illegible, or incorrect documentation will be treated as a nonconformance and will be cause for denying the Seller a release for shipment.

Seller shall provide for Buyer's review and approval a PDF file of the QVD documents for each shipment, per category 36 of Form G-321-E and Note b, one week prior to delivery of the shipment. **Buyer will not accept shipment without a complete and correct QVD package.**

Seller shall also provide a hard copy of the QVD with each shipment. The hard copy shall be bound by a three-ring binder or screw-type aluminum binding posts (three screws), hard covered, and not more than three inches thick. The contents shall be arranged in the order of the G-321-V Form document category numbers (column 1 on the form) and tabs should be provided for each document category number. The document category number should be identified at the top of each page along with the page number and total number of pages (e.g., page 1 of 6). A table of contents shall be included. On the cover, the purchase order number, equipment and/or material, line item number, and applicable tag numbers shall be identified. One QVD package is required for each equipment tag number.

9 SPARE COMPONENTS AND REPAIR PARTS

The Seller shall provide a composite list of the spare parts recommended for field acceptance testing (startup) and one year's operation (total of two years). The parts (preferably small assemblies) shall be cross-referenced to the sectional drawings and parts lists. Spare parts lists shall be separated into two types: startup and operational spares.

The following information is required on all spare parts lists:

- Manufacturer's name and address
- Part number and part name
- Seller's name and part number (if different from manufacturer)
- Procurement lead time
- Recommended shelf life
- Unit price and extension
- Repair kit identification
- Quantity installed per end item
- Date of price quotation and validity of pricing
- Government code number (federal stock number)
- Storage requirements (short-term and long-term)

The Seller shall provide additional information required to make a certain part (e.g., serial numbers, tag numbers, etc.) to facilitate ordering. The Seller shall also state price policy FOB point, freight status, and delivery.

All spares shall be clearly identified, adequately packed for storage, and shipped upon authorization by Buyer.

Any spare parts used by the Seller during the warranty period shall be replenished at the Seller's expense.

10 INSTALLATION/OPERATION AND MAINTENANCE (O AND M) DATA

Installation/operation and maintenance manuals shall be prepared and submitted in accordance with directions contained herein and summarized on Form G-321-E. The manuals shall be self-explanatory and complete with information necessary for the installation, operation, and maintenance of equipment.

Installation/operation and maintenance data shall be organized as follows:

- Section I. Installation/Assembly Instructions
 1. Diagrams Showing Point-to-Point Connections and System Flow
 2. Installation Instructions
 3. Complete and Itemized List of Parts/Materials for Assembly
- Section II. Operation and Maintenance Data
 1. Equipment Description

2. Principle of Operation
 3. Safety Precautions
 4. Procedures of Operation
 5. Storage Requirements (long-term and short-term)
 6. Complete Lubrication Instructions, including Frequency and Type of Lubricant, Type of Lubrication, Alternative Lubricants
 7. Maintenance and Repair Procedures
 8. Troubleshooting Procedures (Fault Identification and Isolation)
 9. Checkout Procedures (Performance Check after Repair)
 10. Tests, Calibration, and Test Validations
 11. Settings, Clearance, and Adjustment Data
 12. Disassembly and Reassembly Instructions
 13. Pertinent Catalog Cuts
 14. Recommended Preventive Maintenance and Frequency
- Section III. Spare and Repair Parts List
 1. Initial and Operational Repair Parts Stockage Lists
 2. Interactive O and M tool: hyperlink to manufacturers' spare parts Web sites for custom equipment
 - Section IV. Special Tools, Tooling, and Test, Measurement, and Diagnostic Equipment
 1. Description and Identification of Special Maintenance Tools and Equipment
 2. Description of Special Test Equipment

Sellers shall include the Web address to part manufacturers' Web sites and parts catalogs in their manuals.

Within each section, all Seller documents and drawings pertinent to the instructions shall be referenced by Seller's title and Buyer's number. At the end of the manual, a list of all of these referenced drawings and documents shall be provided.

For off-the-shelf equipment, copies of manufacturers' standard (not project-specific) installation/operation and maintenance manuals will be accepted. Seller shall clearly indicate which model is supplied and shall also indicate interfaces/terminations from the equipment to the site power/controls/piping.

The manuals shall be submitted in both hard copy form and on CD ROM, with contents per Section 3, Document Format, of this specification. Hard copy manuals shall be contained in three-ring binders or be bound by screw-type aluminum binding posts (three screws) and provided with a hard cover. The hard cover shall identify the subject matter, type of data enclosed, and volume numbers (keyed to Master Index) on the front and side of the cover. The manuals shall not exceed 3 inches in thickness. The instruction sheets shall be approximately 8-1/2 x 11 inches with larger sheets for schematics, drawings, and manufacturer's printed data neatly folded in. Separately rolled drawings will not be accepted.

The Buyer will consolidate Seller documentation in an electronic technical database for Buyer's use in viewing and searching maintenance data. The manual will be linked to drawings and other documents and accessed by authorized personnel through the use of a tablet PC or from a PC connected to the Internet.

11 COMPONENT DATABASE INPUT

The Buyer may specify in category 37.0 of Form G-321-E the requirement for Seller to provide input to Buyer's component database by completing lists of information. When this input is specified, the Buyer will include with the procurement documents electronic templates for the lists; the templates will specify the required content (attribute fields) and format for Seller's input. The lists/database will be for valves, instruments, specialty items, and equipment for which one or more of the following apply: (1) they have external interfaces, (2) they are shipped loose, (3) they require field calibration or maintenance, and (4) piping spools.

The Seller shall complete the templates and submit them to the Buyer in both electronic and hard copy form. The Seller shall include both the Buyer's number (when provided) and the Seller-assigned number for all items on the lists. Engineering Specification for General Project Requirements, 24852-RD-3PS-000-T0002, provides more details on the tagging of these database components.

12 REQUESTS FOR INFORMATION (RFI)

Subcontractors (with subcontracts) shall submit questions/requests for information not related to the document review process on the RFI form, Attachment D. Sellers (with purchase orders) shall transmit their questions/requests for information not related to the document review process via email to the Buyer's representative named in the procurement documents.

Only technical matters shall be addressed in RFIs and RFIs shall not be used to request a waiver or deviation from a technical requirement. The Supplier Deviation Disposition Request (SDDR) form, which shall be used by both Sellers and Subcontractors, shall be used for this purpose. Use of the SDDR form is discussed in Engineering Specification for Supplier Quality Assurance Program Requirements, document 24852-RD-3PS-000-T0001.

Commercial issues shall be addressed per the procurement documents.

13 ATTACHMENTS

Attachment A – Transmittal Sheet

Attachment B – Document Submittal Environment

Attachment C – Electronic Review of Seller Documents Flow Chart

Attachment D – Request for Information Form

14 REFERENCES

24852-RD-3PS-000-T0002 – Engineering Specification for General Project Requirements

24852-RD-3PS-000-T0001 – Engineering Specification for Suppliers Quality Assurance Program Requirements

Attachment A – Transmittal Sheet

Bechtel Pueblo Team		TRANSMITTAL SHEET PUEBLO CHEMICAL AGENT-DESTRUCTION PILOT PLANT PROJECT Job No. 24852										
PURCHASE ORDER / SUBCONTRACT NUMBER:						SELLER'S / SUBCONTRACTOR'S NAME:					TRANSMITTED BY:	
PURCHASE ORDER / SUBCONTRACT TITLE:						SELLER'S / SUBCONTRACTOR'S REFERENCE NO.:					TRANSMITTAL DATE:	
FORM G-321-E DOC CATEGORY NO.	PO/SIC ITEM NO.	SELLER / SUBCONTRACTOR DOCUMENT NO.	SHT NO.	REV	DOCUMENT TITLE	SELLER'S / SUBCONTRACTOR'S ELECTRONIC FILE NAME WITH FILE EXT.	EQUIPMENT TAG NO.	SUBMITTAL		BUYER'S / CONTRACTOR'S DOCUMENT NO.	REV	STATUS CODE
								SCHEDULED DATE	ACTUAL DATE			
Notes (By Seller/Subcontractor):		(start typing here)										

Attachment B – Document Submittal Environment

Seller submittals are managed via Bentley Systems' **ProjectWise Web Explorer**. ProjectWise provides a central repository for organizing the submittals regardless of type or format – e.g., DGN, DWG, PDF, or Microsoft Office formats.

ProjectWise Web Explorer operates over a secure Web connection to allow Sellers to deliver information in the right form and collaborate with the project team.

The document submittal environment will include a link to the PCAPP ProjectWise server. The ProjectWise Web Explorer application will be used to send and receive documents electronically to and from Sellers. Directories will be set up by the Buyer's ProjectWise Administrator for each Seller at the request of the Buyer. These directories will be used to:

1. Receive submittals from the Sellers [Incoming]
2. Return statused documents to the Sellers [Outgoing]
3. Send other Bechtel Pueblo Team (BPT) documentation to the Sellers [Other BPT Documents]

Data transfer occurs in three ways.

1. Seller to PCAPP DCC, Incoming Folder – The Seller places information in this folder and provides notification, via emails to PCAPP DCC (PuebloDC@bechtel.com) and procurement, that a Transmittal Sheet and data have been placed in the folder.
2. PCAPP DCC, PCAPP to Seller Outgoing Folder – Engineer gives reviewed documents to PCAPP DCC; PCAPP DCC accumulates the documents electronically, copies them to the Submittal folder, and notifies the Seller and the Responsible Engineer that a Transmittal Sheet and data have been placed in the folder.

Accessing the ProjectWise Server

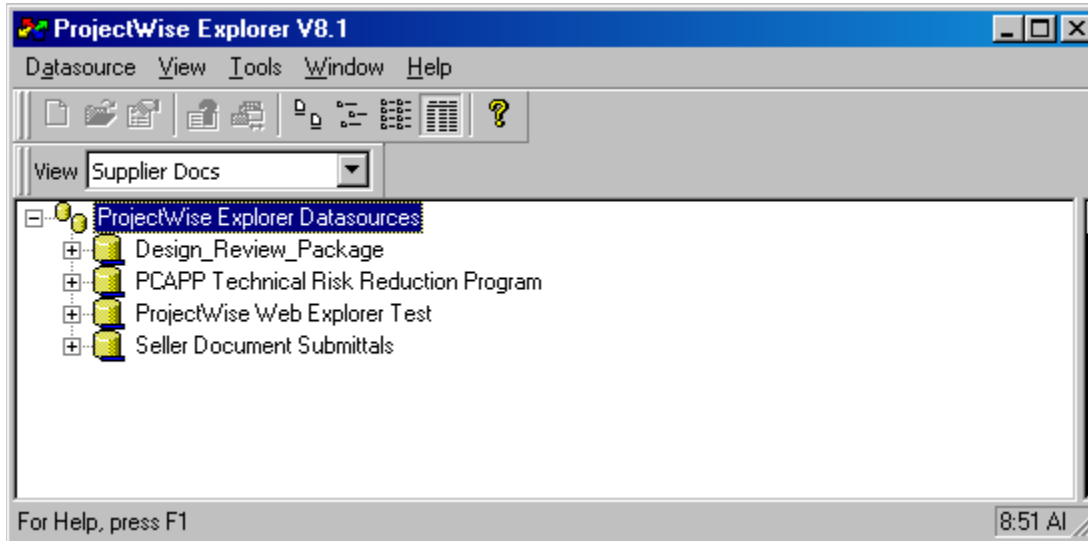
The PCAPP ProjectWise Administrator will create user accounts and folders for Sellers who have been awarded contracts. User properties include:

- **User name:** ProjectWise log-in – provided by the ProjectWise Administrator (Buyer)
- **Description:** Company Name and Dun and Bradstreet Universal Numbering System (DUNS) No.
- **Email:** Company or principal contact's email address
- **Security:** Logical (a ProjectWise user account)

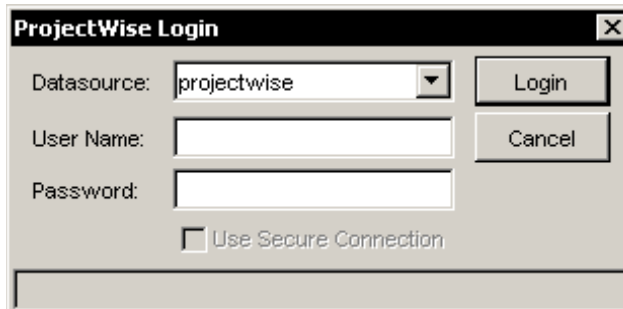
Attachment B – Document Submittal Environment (cont'd)

To log in to a data source, follow these instructions:

1. In the Web Explorer's datasource tree window, select **Seller Document Submittals**



2. When the ProjectWise Login dialog box opens, enter the correct information in the User Name and Password fields.

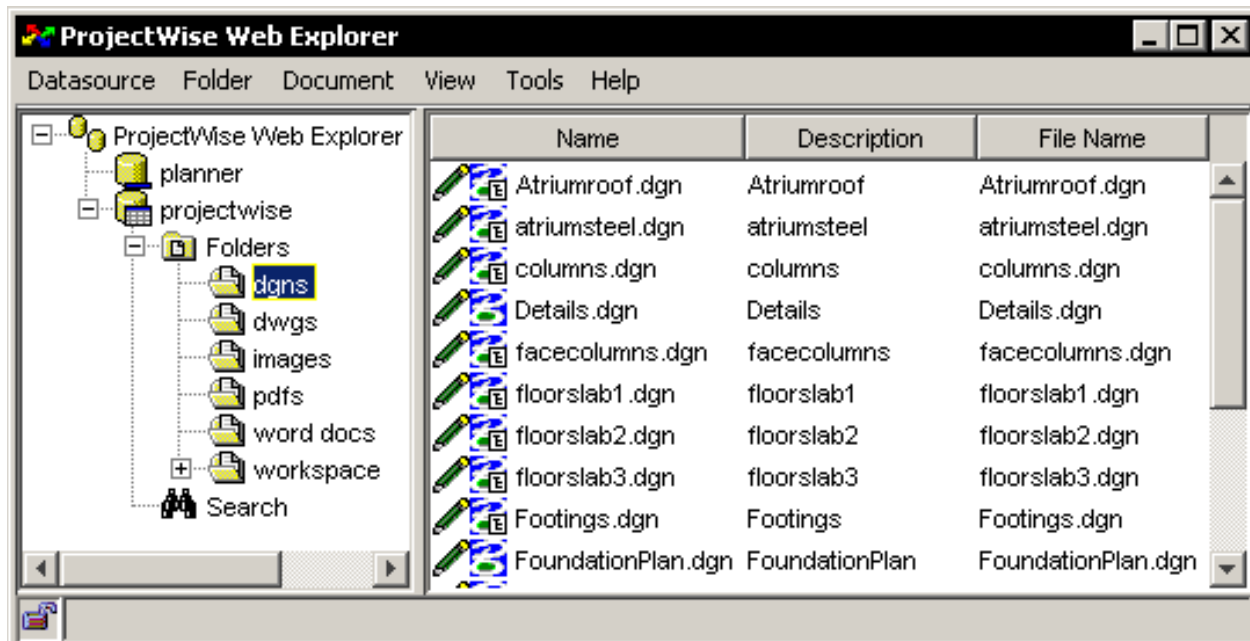


3. ProjectWise has been configured to use a secure connection. Be sure to check the **Use Secure Connection** option.

ProjectWise Web Explorer User Interface

The ProjectWise Web Explorer window has two main sections, the datasource tree window on the left, and the documents window on the right. The datasource tree lists all data sources that can be accessed, and within each data source, all of the folders that can be accessed.

Attachment B – Document Submittal Environment (cont'd)



Clicking the “+” symbol to the left of the root folder expands the list of folders. To display the documents in a folder, select the folder. The documents are listed in the documents window to the right.

Icons in the Documents Window

Each document in the documents window has two icons associated with it. The left icon indicates the permissions and usage of the document, the right icon indicates the application type.

One of the following default icons indicates the current permissions and usage of a document.

Icon	Description
	Pencil – read/write access
	Open book – read access
	Lock – document has been checked out or exported by another user
	Red check mark – document is checked out by you
	Diskette – document has been exported
	Final – document is in final status

Attachment B – Document Submittal Environment (cont'd)

Creating Documents

Sellers should enter their drawings into ProjectWise following the procedure below:

1. In the datasource tree window, select the folder to contain the new document: **INCOMING**
2. From the Document menu, choose NEW > Document. The Create Document dialog box opens.

Create Document

General | Attributes | More attributes

Environment
Name: simple
Description:

Document
Name: doc00002
Description:
Version:
Status: Unknown
Sequence: 0

Application: <none> Department: <none>

Workflow:
State:
Node:

Folder
Name: dgns
Description:

File
File Name:
Import Copy Rename Remove
File Size: 0
Storage:

Out to:
Updater:
Creator:

Save Close

A document is created with the default name docX, where X is a self-incrementing number.

3. In the File section of the dialog box, click the **Import** button. A standard file selection dialog box opens.
4. Select the file to import into ProjectWise and click **OK**. The imported file's name appears in the File Name text field, above the import button, and also by default becomes the new name of the document.
5. (Optional) – Change document name, description if required.
6. Click the **SAVE** button.

The Create Document dialog box changes to the Documents Properties dialog box, displaying the name of the current record, and the newly created document displays in the Documents window as checked in.

Attachment B – Document Submittal Environment (cont'd)

Electronic Review of Seller Documents

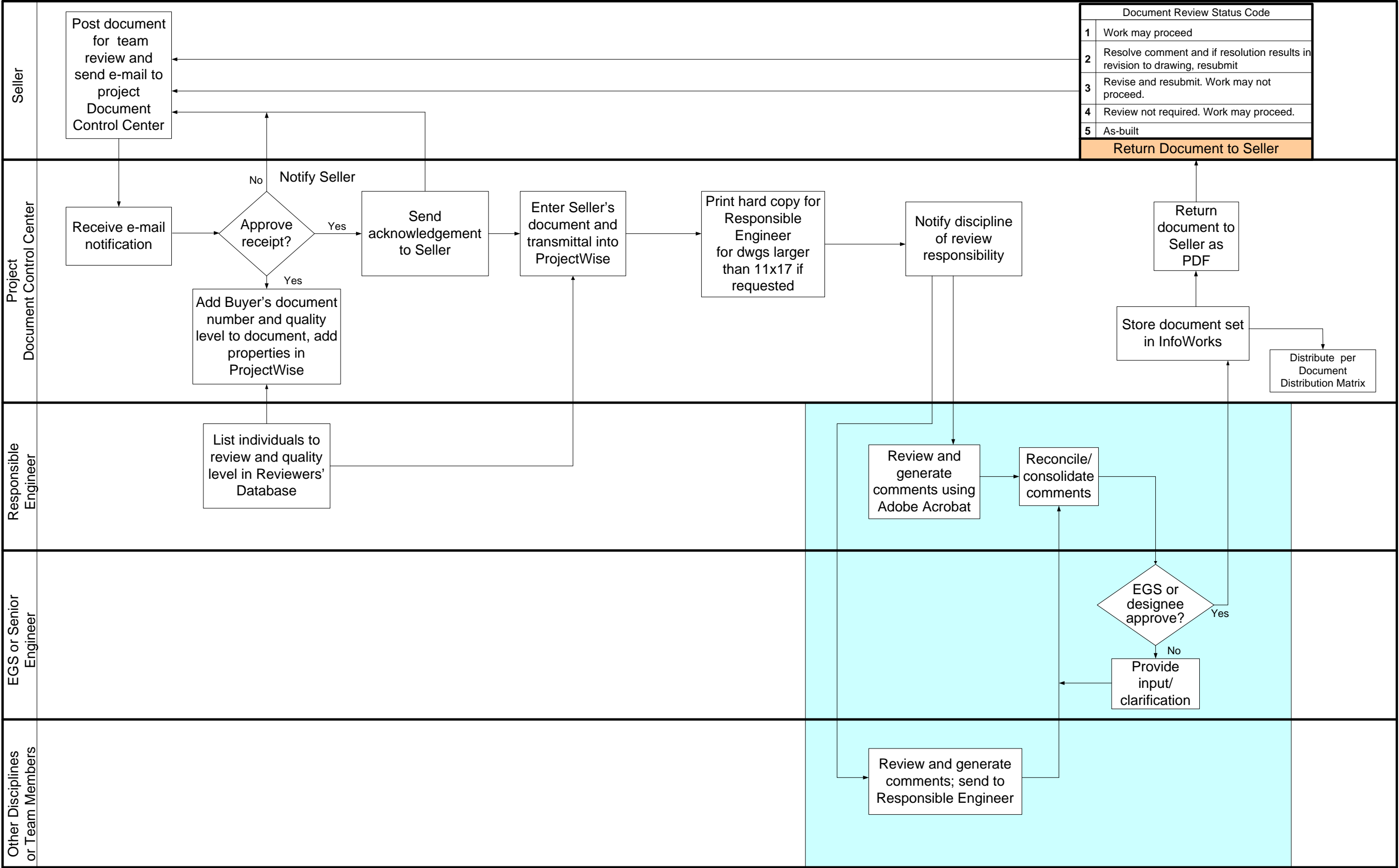
The Buyer will implement a ProjectWise work flow to facilitate the electronic review of Seller submittals. There are four states associated with the document review work flow:

1. DCC Recv'd – Document Control Center Received
2. Eng Review – Engineering Review
3. EGS Appr – Engineering Group Supervisor Approval
4. Review Complete

Access rights are assigned to distinct groups of users at each work flow state. All files achieve DCC Recv'd status when they are formally accepted as Seller submittals. Once this status is achieved, a Seller has “read-only” access to a document.

A work process diagram outlining the electronic review of documents is shown in Attachment C.

Attachment C – Electronic Review of Seller Documents Flow Chart



Attachment D – Request for Information (RFI) Form

Bechtel Pueblo Team	REQUEST FOR INFORMATION (RFI)		
RFI NUMBER:		STARTUP SYSTEM NO.	DATE:
PROJECT NUMBER: 24852		PROJECT NAME: Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP)	
PREPARED BY:			
SUBJECT:			
SUBCONTRACT NUMBER:		SUBCONTRACTOR'S NAME:	
LOCATION:			
TO:		OF:	
REFERENCE DRAWING(S):		REV.:	
SPECIFICATION(S):		REV.:	
INFORMATION REQUESTED:			
REASON FOR RFI:			
REPLY REQUIRED BY (Date):			
IMPACTS:			
RESPONSE			
REQUESTED INFORMATION (Answer):			
EVALUATION: Design Change: Yes <input type="checkbox"/> No <input type="checkbox"/> ECR Required Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, ECR No. _____ Affected Disciplines: E <input type="checkbox"/> C/A <input type="checkbox"/> PD <input type="checkbox"/> C/S <input type="checkbox"/> M <input type="checkbox"/> Process <input type="checkbox"/> Battelle <input type="checkbox"/> Parsons <input type="checkbox"/> WDC <input type="checkbox"/> Change Notice (e.g., FCN) Type _____ No. _____			
RESPONSE BY:		DATE:	
REVIEWED BY PFE:		DATE:	

This RFI is NOT a subcontract change document and does NOT direct a change in the subcontract requirements. If a response to an RFI is interpreted by the Subcontractor as a potential compensatory change, the Subcontractor shall immediately notify the Contractor in writing and shall not proceed with any such work.